(locations of polymorphisms or sites of polymorphisms appear in bold underline)

FIGURE 1 AND SEQ ID NO:1

Wild-type gene


```
-177 CTGCCGGCTC ACTCGGCTGC TGCGTCTGGT CTGGCGTCTG CTGAGAAGAT CCTCTTCTAC
-117 CCTGCTCTGC ACCTGTGCTC GACTGCCAGC CGGCTGAGGG CGGGGGTCTC CACGGTGGTC
 -57 CCAGCTCCCA AGGAGGTTGC AGAA
   1                          gtaagg gcctgagccg ctggaggtcg ggtgggggtc   IVS I
  37 ctgctgacag actgcagcaa agcagggcgg gtggaggggg caggaggaag ctgggtccca
  97 ggcgtttctg ggtgtgtctc agtctctttt gtgcctgcgt gtgcgtgagg gcaggtttgg
 157 gcatttctgt gtgtctgtgt gtgtgacttg tgtccctgca tccctgtgcc tgtgaacacg
 217 cgagtggctg tgtgttcatc agtccctgtg ggtggacacg tgtcctgggg tgtagctgcc
 277 tccaggcacc ctgtgtgtga gtctctaaac caaatgggac cgtgtccttg cgggtgcatg
 337 tgtgtctttg tgttctgtga gtccctgtct gtgcacacgt gtcctcgtgt ctccatgtgt
 397 ccctgcatgt gcatgtgtgc ctgtgtgttc tggtgtgtgt gcccgtgtgc ctcagtgtct
 457 ctccgctggg cgtgtgtctg gcactgcagc cacttgtctc tgcgctctgt cccag
 -33                        GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGCATG   ATG Start
   4 GAGCCCCTCT TCCCCGCGCC GTTCTGGGAG GTTATCTACG GCAGCCACCT TCAGGGCAAC
  64 CTGTCCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC
 124 CACGGCGCCT TCCTGCCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG
 184 TGTGTCGGAG GGCTCCTGGG GAACTGCCTT GTCATGTACG TCATCCTCAG GCACACCAAA
 244 ATGAAGACAG CCACCAATAT TTACATCTTT AACCTGGCCC TGGCCGACAC TCTGGTCCTG
 304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGGCT TCTGGCCGTT TGGGAATGCG
 364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCCTA
 424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC
 484 CGCACGTCCA GCAAAGCCCA GGCTGTCAAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC
 544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG
   1                                   gtca gtggggtgtc   IVS III
  15 ccctcctccc ctcaccaggc tccctggctc ccgggtggct cctctgggcc cacgtgccct
  65 ccacgtctcc tgggcccact ctgaccccgt ttctctccct gcag
 590                                       AGAT CGAGTGCCTG
 604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TTGCCATCTG CATCTTCCTC
 664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCGG
 724 CTCCGTGGAG TCCGCCTGCT CTCGGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC
 784 ACTCGGCTGG TGCTGGTGGT AGTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC
 844 TTCGTGCTGG CCCAAGGGCT GGGGGTTCAG CCGAGCAGCG AGACTGCCGT GGCCATTCTG
 904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCTCA ACCCCATCCT CTACGCCTTC
```

```
1      964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCGCCGG
2     1024 GACGTGCAGG TGTCTGACCG CGTGCGCAGC ATTGCCAAGG ACGTGGCCCT GGCCTGCAAG
3     1084 ACCTCTGAGA CGGTACCGCG GCCCGCATGA CTAGGCGTGG ACCTGCCCAT GGTGCCTGTC
4     1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG
5     1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTTCCCTG TGGGCCAGGG
6     1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA
7     1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAG
8     1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTGCCCCTC
9     1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCCTGGGT
10    1504 GGGCAGGCAC CCGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCCCCA TGTGCTGTGT
11    1564 GCTGTTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT
12    1624 GGACAGGCTT GGCACGGCCC GGGAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTG
13    1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTTC CGACTCCACC TGTGCAGCCG
14    1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG
```

Intron sequences (IVS I and IVS III) are shown in small case letters. Numbering for each IVS begins with +1 for the first base of the intron; numbering is specific for each intron. mRNA sequence is shown in capital letters. +1 is assigned to the first base of the initiation codon. Nucleotides upstream (5') from the initiation codon are assigned negative numbers. The ATG initiation codon and TGA stop codon are shown in bold. Locations of identified SNPs are also shown in bold and underlined.

FIGURE 2 AND SEQ ID NO:2
Wild-type Intron I (IVS I)

```
        1                            gtaagg gcctgagccg ctggaggtcg ggtgggggtc
       37 ctgctgacag actgcagcaa agcagggcgg gtggagggggg caggaggaag ctgggtccca
       97 ggcgtttctg ggtgtgtctc agtctctttt gtgcctgcgt gtgcgtgagg gcaggtttgg
      157 gcatttctgt gtgtctgtgt gtgtgacttg tgtccctgca tccctgtgcc tgtgaacacg
      217 cgagtggctg tgtgttcatc agtccctgtg ggtggacacg tgtcctgggg tgtagctgcc
      277 tccaggcacc ctgtgtgtga gtctctaaac caaatgggac cgtgtccttg cgggtgcatg
      337 tgtgtctttg tgttctgtga gtccctgtct gtgcacacgt gtcctcgtgt ctccatgtgt
      397 ccctgcatgt gcatgtgtgc ctgtgtgttc tggtgtgtgt gcccgtgtgc ctcagtgtct
      457 ctccgctggg cgtgtgtctg gcactgcagc cacttgtctc tgcgctctgt cccag
```
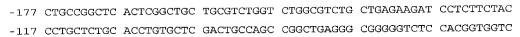
FIGURE 3 AND SEQ ID NO:3
G-46A polymorphism in 5'-untranslated region

```
-177 CTGCCGGCTC ACTCGGCTGC TGCGTCTGGT CTGGCGTCTG CTGAGAAGAT CCTCTTCTAC
-117 CCTGCTCTGC ACCTGTGCTC GACTGCCAGC CGGCTGAGGG CGGGGGTCTC CACGGTGGTC
 -57 CCAGCTCCCA AAGAGGTTGC AGAA
```

FIGURE 4 AND SEQ ID NO:4

GIVS I 135C polymorphism in intron I

```
  1                              gtaagg gcctgagccg ctggaggtcg ggtgggggtc
 37 ctgctgacag actgcagcaa agcagggcgg gtggaggggg caggaggaag ctgggtccca
 97 ggcgtttctg ggtgtgtctc agtctctttt gtgcctgcct gtgcgtgagg gcaggtttgg
157 gcatttctgt gtgtctgtgt gtgtgacttg tgtccctgca tccctgtgcc tgtgaacacg
217 cgagtggctg tgtgttcatc agtccctgtg ggtggacacg tgtcctgggg tgtagctgcc
277 tccaggcacc ctgtgtgtga gtctctaaac caaatgggac cgtgtccttg cgggtgcatg
337 tgtgtctttg tgttctgtga gtccctgtct gtgcacacgt gtcctcgtgt ctccatgtgt
397 ccctgcatgt gcatgtgtgc ctgtgtgttc tggtgtgtgt gcccgtgtgc ctcagtgtct
457 ctccgctggg cgtgtgtctg gcactgcagc cacttgtctc tgcgctctgt cccag
```

FIGURE 5 AND SEQ ID NO:5

GIVS I 250A polymorphism in intron I

```
  1                              gtaagg gcctgagccg ctggaggtcg ggtgggggtc
 37 ctgctgacag actgcagcaa agcagggcgg gtggaggggg caggaggaag ctgggtccca
 97 ggcgtttctg ggtgtgtctc agtctctttt gtgcctgcgt gtgcgtgagg gcaggtttgg
157 gcatttctgt gtgtctgtgt gtgtgacttg tgtccctgca tccctgtgcc tgtgaacacg
217 cgagtggctg tgtgttcatc agtccctgtg ggtagacacg tgtcctgggg tgtagctgcc
277 tccaggcacc ctgtgtgtga gtctctaaac caaatgggac cgtgtccttg cgggtgcatg
337 tgtgtctttg tgttctgtga gtccctgtct gtgcacacgt gtcctcgtgt ctccatgtgt
397 ccctgcatgt gcatgtgtgc ctgtgtgttc tggtgtgtgt gcccgtgtgc ctcagtgtct
457 ctccgctggg cgtgtgtctg gcactgcagc cacttgtctc tgcgctctgt cccag
```

1   FIGURE 6 AND SEQ ID NO:6

2   GIVS I 251A polymorphism in intron I

3

4   1   gtaagg gcctgagccg ctggaggtcg ggtgggggtc

5   37 ctgctgacag actgcagcaa agcagggcgg gtggaggggg caggaggaag ctgggtccca

6   97 ggcgtttctg ggtgtgtctc agtctctttt gtgcctgc**gt** gtgcgtgagg gcaggtttgg

7   157 gcatttctgt gtgtctgtgt gtgtgacttg tgtccctgca tccctgtgcc tgtgaacacg

8   217 cgagtggctg tgtgttcatc agtccctgtg ggt**ga**acacg tgtcctgggg tgtagctgcc

9   277 tccaggcacc ctgtgtgtga gtctctaaac caaatgggac cgtgtccttg cgggtgcatg

10   337 tgtgtctttg tgttctgtga gtccctgtct gtgcacacgt gtcctcgtgt ctccatgtgt

11   397 ccctgcatgt gcatgtgtgc ctgtgtgttc tggtgtgtgt gcccgtgtgc ctcagtgtct

12   457 ctccgctggg cgtgtgtctg gcactgcagc cacttgtctc tgcgctctgt cccag

13

14

15   FIGURE 7 AND SEQ ID NO:7

16   C510T polymorphism in coding region

17

18   -33   GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGC**ATG**   **ATG Start**

19   4 GAGCCCCTCT TCCCCGCGCC GTTCTGGGAG GTTATCTACG GCAGCCACCT TCAGGGCAAC

20   64 CTGTCCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC

21   124 CACGGCGCCT TCCTGCCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG

22   184 TGTGTCGGAG GGCTCCTGGG GAACTGCCTT GTCATGTACG TCATCCTCAG GCACACCAAA

23   244 ATGAAGACAG CCACCAATAT TTACATCTTT AACCTGGCCC TGGCCGACAC TCTGGTCCTG

24   304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGGCT TCTGGCCGTT TGGGAATGCG

25   364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCCTA

26   424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC

27   484 CGCACGTCCA GCAAAGCCCA GGCTGT**T**AAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC

28   544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG

29

30   590   AGAT CGAGTGCCTG

31   604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TTGCCATCTG CATCTTCCTC

32   664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCGG

33   724 CTCCGTGGAG TCCGCCTGCT CTCGGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC

34   784 ACTCGGCTGG TGCTGGTGGT **A**GTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC

35   844 TTCGTGCTGG CCCAAGGGCT GGGGGGTTCAG CCGAGCAGCG AGACTGCCGT GGCCATTCTG

36   904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCTCA ACCCCATCCT CTACGCCTTC

37   964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCGCCGG

38 1024 GA**C**GTGCAGG TGTCTGACCG CGTGCGCAGC ATTGCCAAGG ACGTGGCCCT GGCCTGCAAG

39 1084 ACCTCTGAGA CGGTACCGCG GCCCGCA**TGA** CTAGGCGTGG AC**C**TGCCCAT GGTGCCTGTC

40 1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG

41 1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTTCCCTG TGGGCCAGGG

42 1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA

<table>
<tr><td>1</td><td>1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAG</td></tr>
<tr><td>2</td><td>1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTGCCCCTC</td></tr>
<tr><td>3</td><td>1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCCTGGGT</td></tr>
<tr><td>4</td><td>1504 GGGCAGGCAC CCGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCCCCA TGTGCTGTGT</td></tr>
<tr><td>5</td><td>1564 GCTGTTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT</td></tr>
<tr><td>6</td><td>1624 GGACAGGCTT GGCACGGCCC GGGAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTG</td></tr>
<tr><td>7</td><td>1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTTC CGACTCCACC TGTGCAGCCG</td></tr>
<tr><td>8</td><td>1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG</td></tr>
<tr><td>9</td><td></td></tr>
<tr><td>10</td><td></td></tr>
<tr><td>11</td><td>FIGURE 8 AND SEQ ID NO:8</td></tr>
<tr><td>12</td><td>CIVS III 67T polymorphism in intron III</td></tr>
<tr><td>13</td><td></td></tr>
<tr><td>14</td><td>-33   GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGC**ATG**   **ATG Start**</td></tr>
<tr><td>15</td><td>4 GAGCCCCTCT TCCCCGCGCC GTTCTGGGAG GTTATCTACG GCAGCCACCT TCAGGGCAAC</td></tr>
<tr><td>16</td><td>64 CTGTCCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC</td></tr>
<tr><td>17</td><td>124 CACGGCGCCT TCCTGCCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG</td></tr>
<tr><td>18</td><td>184 TGTGTCGGAG GGCTCCTGGG GAACTGCCTT GTCATGTACG TCATCCTCAG GCACACCAAA</td></tr>
<tr><td>19</td><td>244 ATGAAGACAG CCACCAATAT TTACATCTTT AACCTGGCCC TGGCCGACAC TCTGGTCCTG</td></tr>
<tr><td>20</td><td>304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGGCT TCTGGCCGTT TGGGAATGCG</td></tr>
<tr><td>21</td><td>364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCCTA</td></tr>
<tr><td>22</td><td>424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC</td></tr>
<tr><td>23</td><td>484 CGCACGTCCA GCAAAGCCCA GGCTGT<u>T</u>AAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC</td></tr>
<tr><td>24</td><td>544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG</td></tr>
<tr><td>25</td><td></td></tr>
<tr><td>26</td><td>1   gtca gtggggtgtc   **IVS III**</td></tr>
<tr><td>27</td><td>15 ccctcctccc ctcaccaggc tccctggctc ccgggtggct cctctgggcc ca<u>t</u>gtgccct</td></tr>
<tr><td>28</td><td>65 ccacgtctcc tgggcccact ctgaccccgt ttctctccct gcag</td></tr>
<tr><td>29</td><td></td></tr>
<tr><td>30</td><td>590   AGAT CGAGTGCCTG</td></tr>
<tr><td>31</td><td>604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TTGCCATCTG CATCTTCCTC</td></tr>
<tr><td>32</td><td>664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCGG</td></tr>
<tr><td>33</td><td>724 CTCCGTGGAG TCCGCCTGCT CTCGGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC</td></tr>
<tr><td>34</td><td>784 ACTCGGCTGG TGCTGGTGGT <u>A</u>GTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC</td></tr>
<tr><td>35</td><td>844 TTCGTGCTGG CCCAAGGGCT GGGGGGTTCAG CCGAGCAGCG AGACTGCCGT GGCCATTCTG</td></tr>
<tr><td>36</td><td>904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCTCA ACCCCATCCT CTACGCCTTC</td></tr>
<tr><td>37</td><td>964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCGCCGG</td></tr>
<tr><td>38</td><td>1024 GA<u>**C**</u>GTGCAGG TGTCTGACCG CGTGCGCAGC ATTGCCAAGG ACGTGGCCCT GGCCTGCAAG</td></tr>
<tr><td>39</td><td>1084 ACCTCTGAGA CGGTACCGCG GCCCGC**ATGA** CTAGGCGTGG AC<u>**C**</u>TGCCCAT GGTGCCTGTC</td></tr>
<tr><td>40</td><td>1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG</td></tr>
<tr><td>41</td><td>1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTTCCCTG TGGGCCAGGG</td></tr>
<tr><td>42</td><td>1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA</td></tr>
</table>

1	1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAG
2	1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTGCCCCTC
3	1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCCTGGGT
4	1504 GGGCAGGCAC CCGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCCCCA TGTGCTGTGT
5	1564 GCTGTTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT
6	1624 GGACAGGCTT GGCACGGCCC GGGAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTG
7	1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTTC CGACTCCACC TGTGCAGCCG
8	1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG

FIGURE 9 AND SEQ ID NO:9

A804G polymorphism in coding region

	-33 GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGC**ATG** **ATG Start**
14	4 GAGCCCCTCT TCCCCGCGCC GTTCTGGGAG GTTATCTACG GCAGCCACCT TCAGGGCAAC
15	64 CTGTCCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC
16	124 CACGGCGCCT TCCTGCCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG
17	184 TGTGTCGGAG GGCTCCTGGG GAACTGCCTT GTCATGTACG TCATCCTCAG GCACACCAAA
18	244 ATGAAGACAG CCACCAATAT TTACATCTTT AACCTGGCCC TGGCCGACAC TCTGGTCCTG
19	304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGGCT TCTGGCCGTT TGGGAATGCG
20	364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCCTA
21	424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC
22	484 CGCACGTCCA GCAAAGCCCA GGCTGT<u>C</u>AAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC
23	544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG

	590 AGAT CGAGTGCCTG
27	604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TTGCCATCTG CATCTTCCTC
28	664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCGG
29	724 CTCCGTGGAG TCCGCCTGCT CTCGGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC
30	784 ACTCGGCTGG TGCTGGTGGT **G**GTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC
31	844 TTCGTGCTGG CCCAAGGGCT GGGGGTTCAG CCGAGCAGCG AGACTGCCGT GGCCATTCTG
32	904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCTCA ACCCCATCCT CTACGCCTTC
33	964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCGCCGG
34	1024 GA<u>C</u>GTGCAGG TGTCTGACCG CGTGCGCAGC ATTGCCAAGG ACGTGGCCCT GGCCTGCAAG
35	1084 ACCTCTGAGA CGGTACCGCG GCCCGCA**TGA** CTAGGCGTGG AC<u>C</u>TGCCCAT GGTGCCTGTC
36	1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG
37	1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTTCCCTG TGGGCCAGGG
38	1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA
39	1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAG
40	1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTGCCCCTC
41	1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCCTGGGT
42	1504 GGGCAGGCAC CCGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCCCCA TGTGCTGTGT

1564 GCTGTTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT

1624 GGACAGGCTT GGCACGGCCC GGGAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTG

1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTTC CGACTCCACC TGTGCAGCCG

1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG

FIGURE 10 AND SEQ ID NO:10

C1026T polymorphism in coding region

-33   GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGC**ATG**   ATG Start

   4 GAGCCCCTCT TCCCCGCGCC GTTCTGGGAG GTTATCTACG GCAGCCACCT TCAGGGCAAC

  64 CTGTCCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC

 124 CACGGCGCCT TCCTGCCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG

 184 TGTGTCGGAG GGCTCCTGGG GAACTGCCTT GTCATGTACG TCATCCTCAG GCACACCAAA

 244 ATGAAGACAG CCACCAATAT TTACATCTTT AACCTGGCCC TGGCCGACAC TCTGGTCCTG

 304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGGCT TCTGGCCGTT TGGGAATGCG

 364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCCTA

 424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC

 484 CGCACGTCCA GCAAAGCCCA GGCTGT<u>C</u>AAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC

 544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG

 590   AGAT CGAGTGCCTG

 604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TGCCATCTG CATCTTCCTC

 664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCGG

 724 CTCCGTGGAG TCCGCCTGCT CTCGGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC

 784 ACTCGGCTGG TGCTGGTGGT <u>A</u>GTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC

 844 TTCGTGCTGG CCCAAGGGCT GGGGGTTCAG CCGAGCAGCG AGACTGCCGT GGCCATTCTG

 904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCTCA ACCCCATCCT CTACGCCTTC

 964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCGCCGG

1024 GA<u>T</u>GTGCAGG TGTCTGACCG CGTGCGCAGC ATTGCCAAGG ACGTGGCCCT GGCCTGCAAG

1084 ACCTCTGAGA CGGTACCGCG GCCCGCA**TGA** CTAGGCGTGG AC<u>C</u>TGCCCAT GGTGCCTGTC

1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG

1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTTCCCTG TGGGCCAGGG

1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA

1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAG

1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTGCCCCTC

1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCCTGGGT

1504 GGGCAGGCAC CCGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCCCCA TGTGCTGTGT

1564 GCTGTTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT

1624 GGACAGGCTT GGCACGGCCC GGGAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTG

1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTTC CGACTCCACC TGTGCAGCCG

1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG

FIGURE 11 AND SEQ ID NO:11

C1126G polymorphism in 3'-untranslated region

                    -33   GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGC**ATG**   **ATG Start**

                       4 GAGCCCCTCT TCCCCGCGCC GTTCTGGGAG GTTATCTACG GCAGCCACCT TCAGGGCAAC

                      64 CTGTCCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC

                     124 CACGGCGCCT TCCTGCCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG

                     184 TGTGTCGGAG GGCTCCTGGG GAACTGCCTT GTCATGTACG TCATCCTCAG GCACACCAAA

                     244 ATGAAGACAG CCACCAATAT TTACATCTTT AACCTGGCCC TGGCCGACAC TCTGGTCCTG

                     304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGGCT TCTGGCCGTT TGGGAATGCG

                     364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCCTA

                     424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC

                     484 CGCACGTCCA GCAAAGCCCA GGCTGT_C_AAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC

                     544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG

                     590   AGAT CGAGTGCCTG

                     604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TGCCATCTG CATCTTCCTC

                     664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCGG

                     724 CTCCGTGGAG TCCGCCTGCT CTCGGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC

                     784 ACTCGGCTGG TGCTGGTGGT **A**GTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC

                     844 TTCGTGCTGG CCCAAGGGCT GGGGGGTTCAG CCGAGCAGCG AGACTGCCGT GGCCATTCTG

                     904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCTCA ACCCCATCCT CTACGCCTTC

                     964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCGCCGG

                    1024 GA_C_GTGCAGG TGTCTGACCG CGTGCGCAGC ATTGCCAAGG ACGTGGCCCT GGCCTGCAAG

                    1084 ACCTCTGAGA CGGTACCGCG GCCCGCA**TGA** CTAGGCGTGG AC_G_TGCCCAT GGTGCCTGTC

                    1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG

                    1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTTCCCTG TGGGCCAGGG

                    1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA

                    1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAG

                    1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTGCCCCTC

                    1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCCTGGGT

                    1504 GGGCAGGCAC CCGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCCCCA TGTGCTGTGT

                    1564 GCTGTTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT

                    1624 GGACAGGCTT GGCACGGCCC GGGAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTG

                    1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTTC CGACTCCACC TGTGCAGCCG

                    1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG